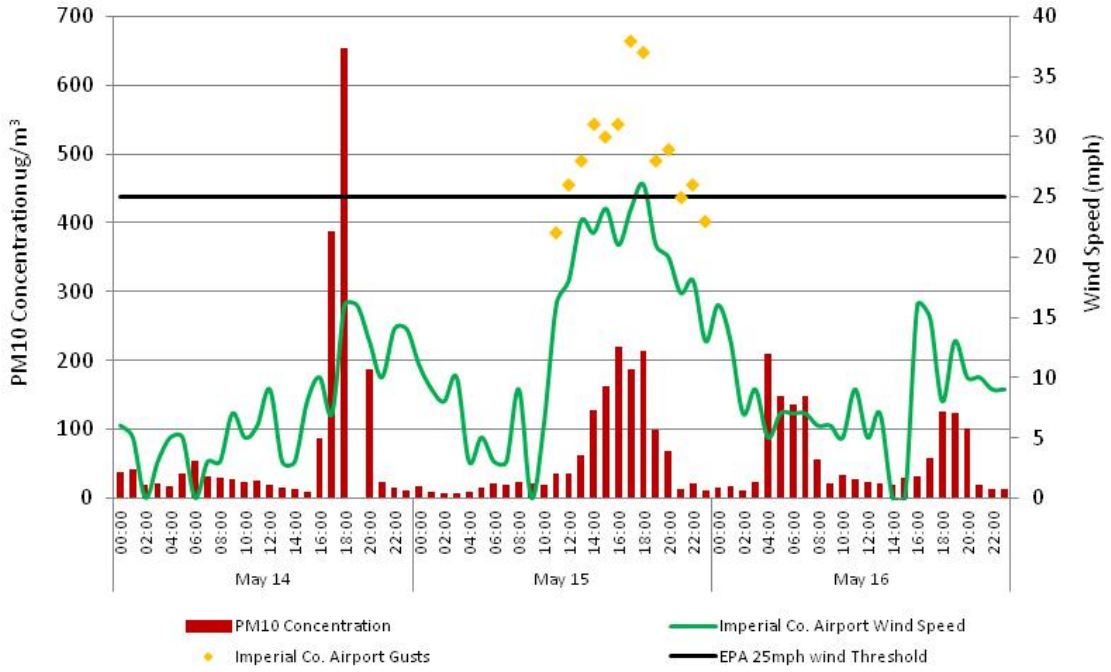
Appendix C
Correlated PM_{10} Concentrations and Winds

The following graphs illustrate the direct correlation between wind speeds[1] and PM_{10} concentrations at select monitoring sites within the Salton Sea Air Basin on May 15, 2016. Note a variety of instruments measure wind speed at different times during any given hour. Therefore, the following graphs reflect the hour of the wind measurement.

IMPERIAL COUNTY SELECT SITES
(Figures C-1 to C-5)

FIGURE C-1
BRAWLEY PM_{10} CONCENTRATION & WIND SPEED CORRELATION



Figs C-1: The Brawley monitor saw an increase in concentrations in response to increased winds on May 15. Air quality and wind data from the EPA's AQS data bank. Wind data from the NCEI's QCLCD system.

[1] National Weather Service; NOAA's Glossary – Wind Speed: The rate at which air is moving horizontally past a given point. It may be a 2-minute average speed (reported as wind speed) or an instantaneous speed (reported as a peak wind speed, wind gust, or squall); https://w1.weather.gov/glossary/index.php?letter=w

FIGURE C-2
CALEXICO PM_{10} CONCENTRATION & WIND SPEED CORRELATION

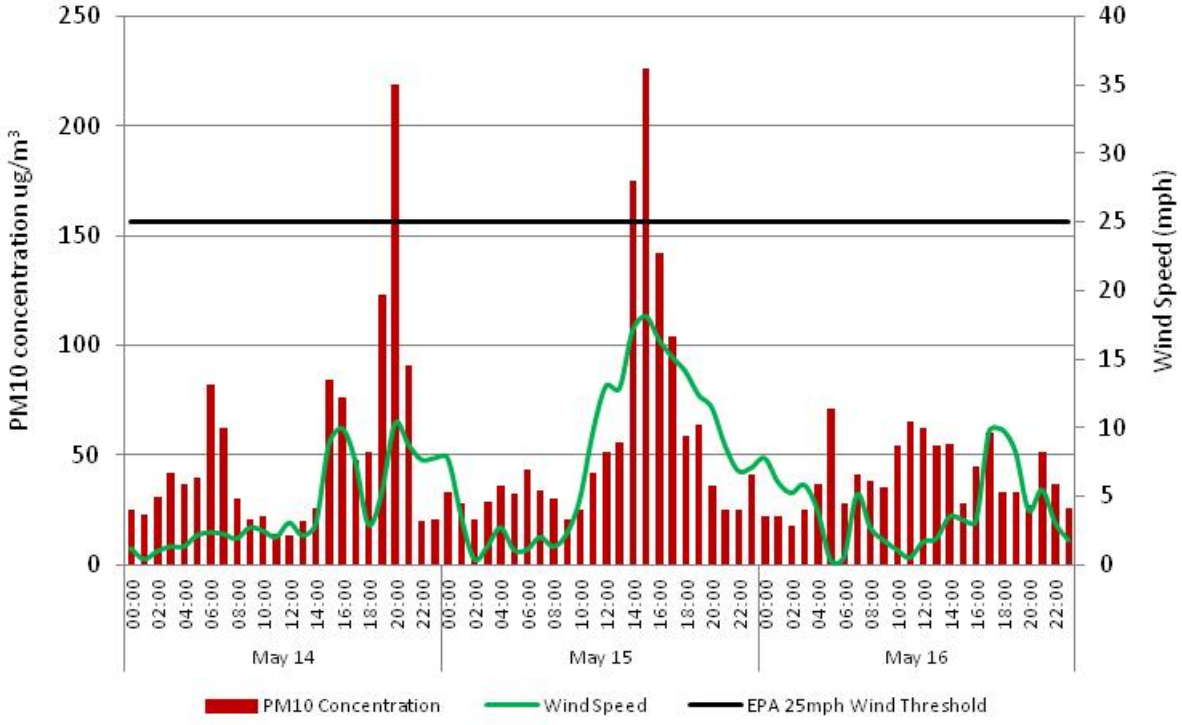


Fig. C-2: Calexico experienced spikes in PM_{10} concentration in response to increased wind speeds during the early part of May 15, but winds did not rise above the 25 mph threshold. Air quality and wind data from the EPA's AQS data bank.

FIGURE C-3
EL CENTRO (9th St) PM_{10} CONCENTRATION & WIND SPEED CORRELATION

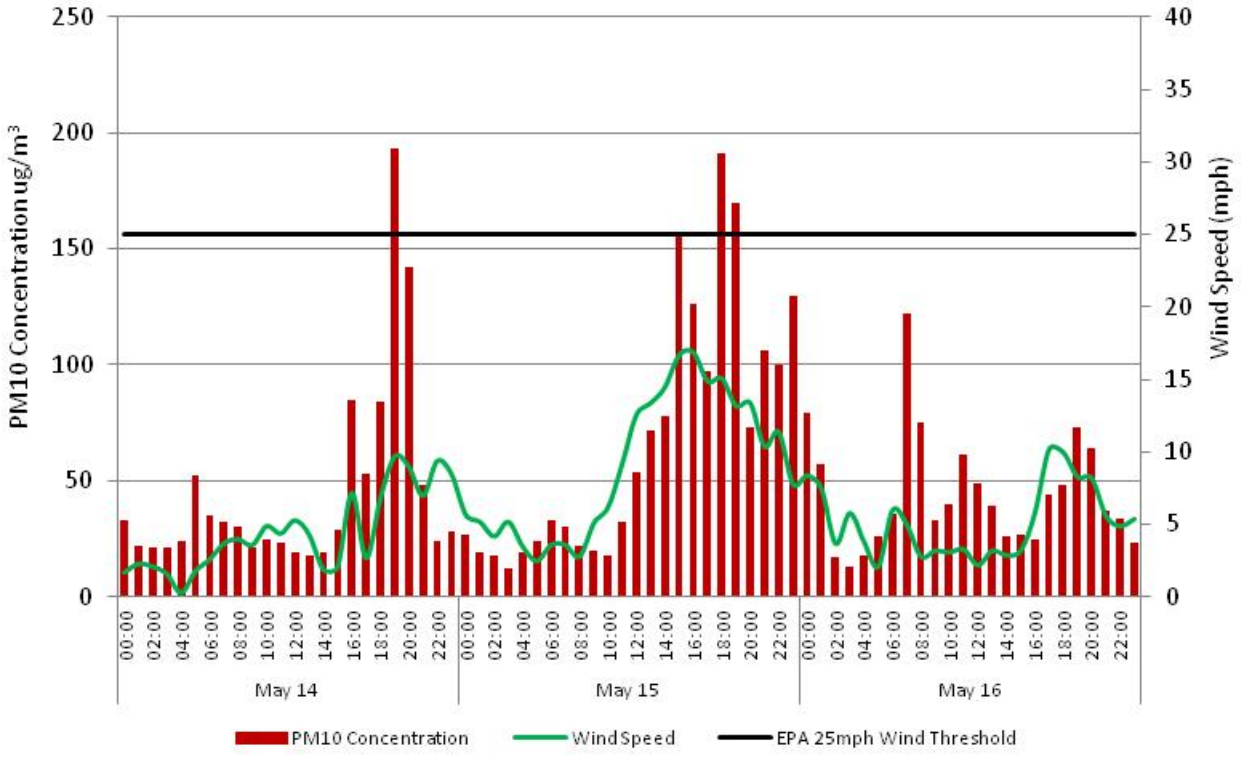


Fig. C-3: El Centro (9th St) experienced spikes in PM_{10} concentration in response to increased wind speeds on May 15, but winds did not rise above the 25 mph threshold. Air quality and wind data from the EPA's AQS data bank.

FIGURE C-4
NILAND (ENGLISH RD) PM_{10} CONCENTRATION & WIND SPEED CORRELATION

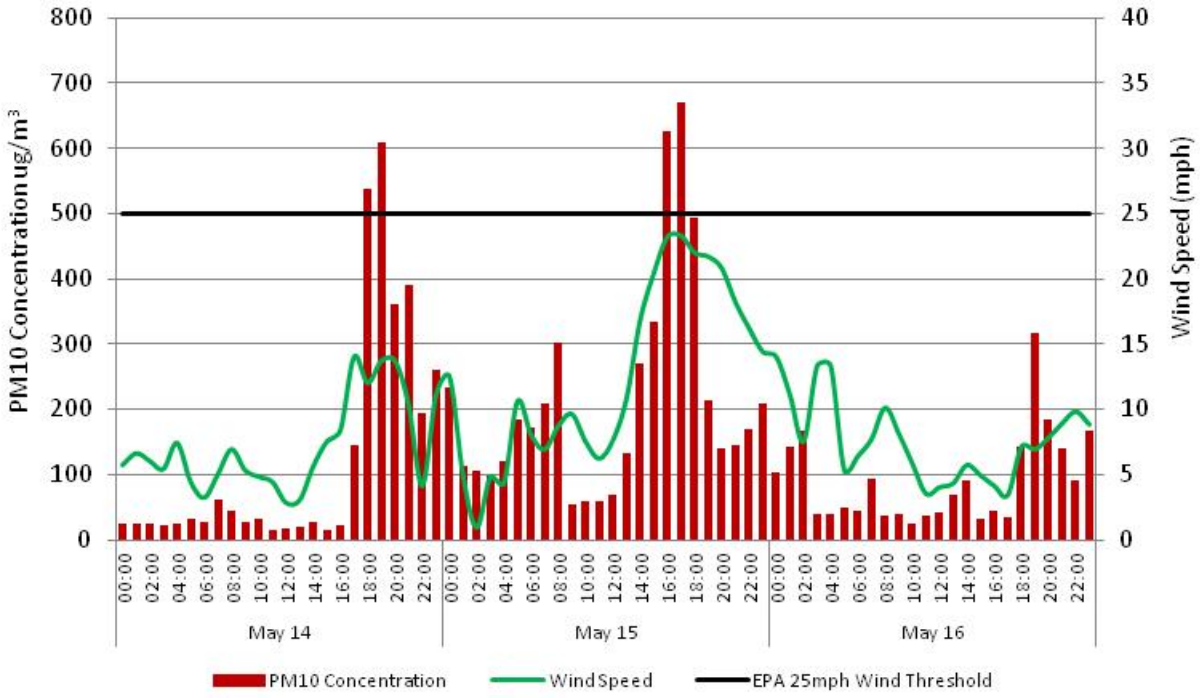


Fig. C-4: Niland (English Rd) experienced spikes in PM_{10} concentration in response to increased wind speeds early on May 15, and again in the afternoon. Air quality and wind data from the EPA's AQS data bank.

FIGURE C-5
WESTMORLAND PM_{10} CONCENTRATION & WIND SPEED CORRELATION

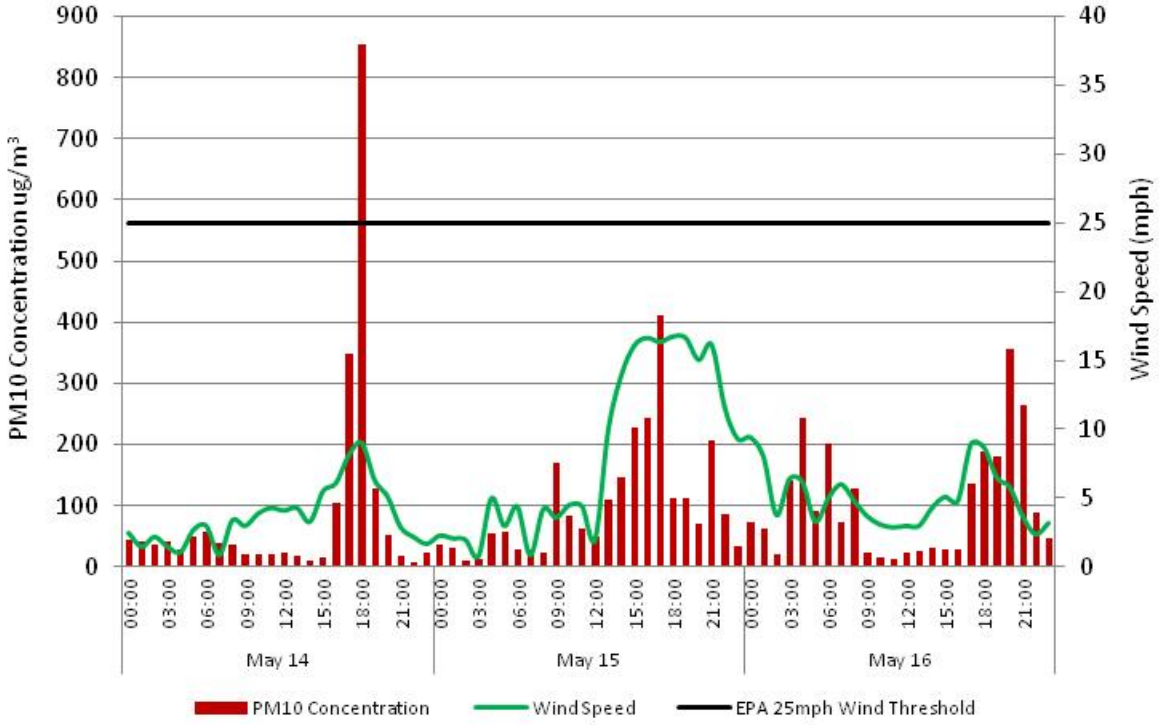


Fig. C-5: Westmorland experienced spikes in PM_{10} concentration in response to increased wind speeds on May 15, although winds never exceeded the 25 mph wind threshold. Air quality and wind data from the EPA's AQS data bank.

RIVERSIDE COUNTY MONITORING SITES

FIGURE C-6
TORRES-MARTINEZ TRIBAL PM_{10} CONCENTRATION & WIND SPEED CORRELATION

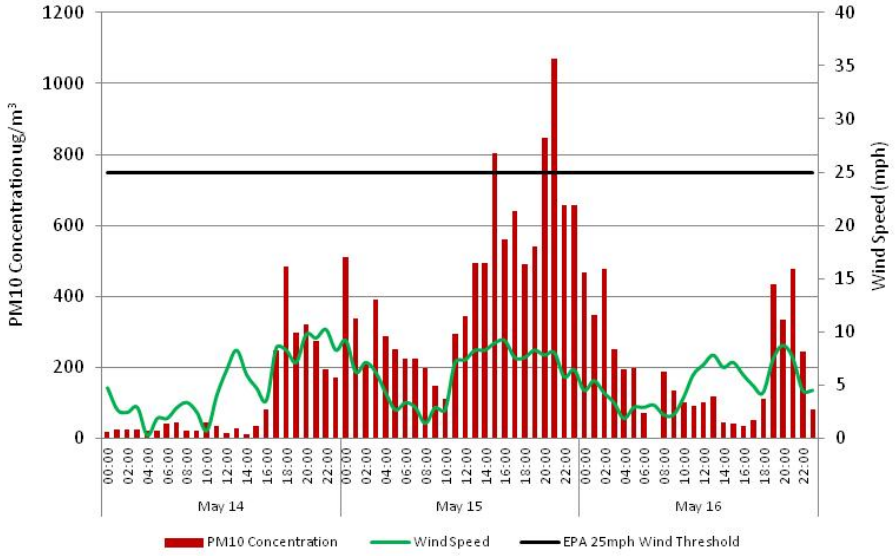


Fig. C-6: The Torres-Martinez Desert Cahuilla Indian Reservation experienced spikes in PM_{10} concentration in response to increased wind speeds on May 15, although winds never exceeded the 25 mph wind threshold. Air quality and wind data from the EPA's AQS data bank.

FIGURE C-7
INDIO (JACKSON ST) PM_{10} CONCENTRATION & WIND SPEED CORRELATION

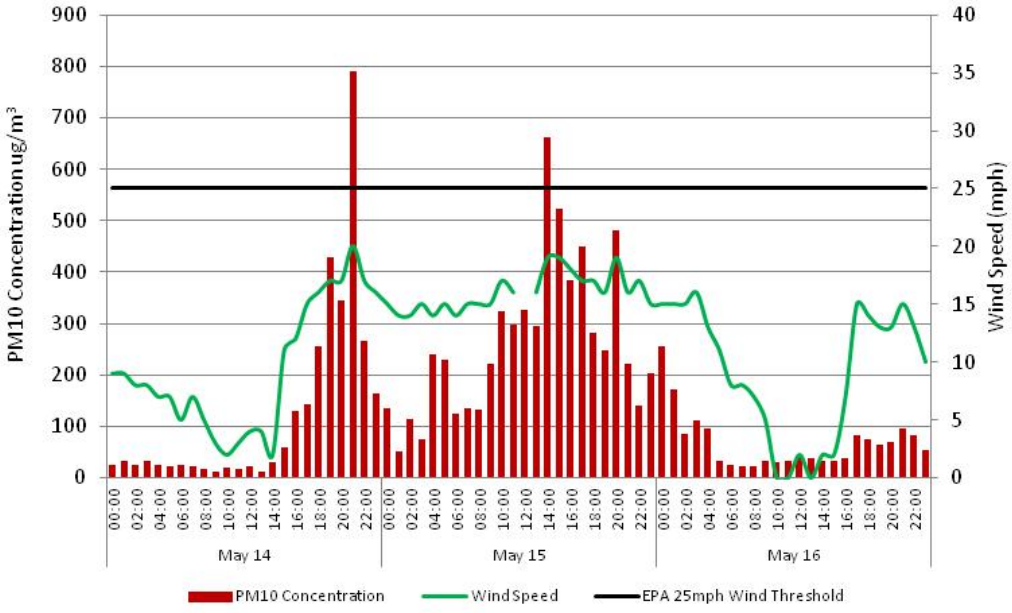


Fig. C-7: Indio (Jackson St) experienced spikes in PM_{10} concentration in response to increased wind speeds on May 15, although winds never exceeded the 25 mph wind threshold. Air quality data is from the EPA's AQS data bank. Wind data is from AQMIS.

FIGURE C-8
PALM SPRINGS FIRE STATION PM_{10} CONCENTRATION & WIND SPEED CORRELATION

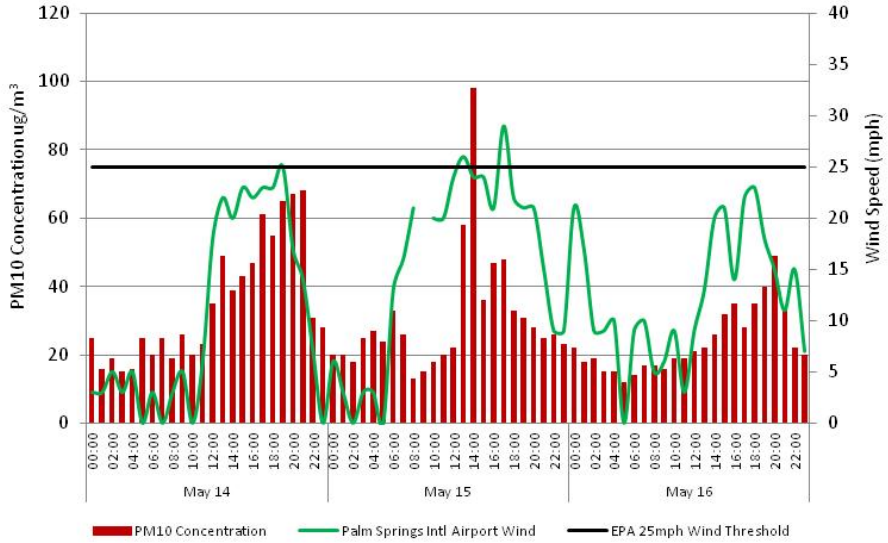


Fig. C-8: Palm Springs Fire Station saw increased concentrations following an increase of wind speed on March 6. Air quality data is from the EPA's AQS data bank. Wind data is from the NCEI's QCLCD system.

SOUTHWESTERN ARIZONA

FIGURE C-5
YUMA, ARIZONA SUPERSITE PM_{10} CONCENTRATION & WIND SPEED CORRELATION

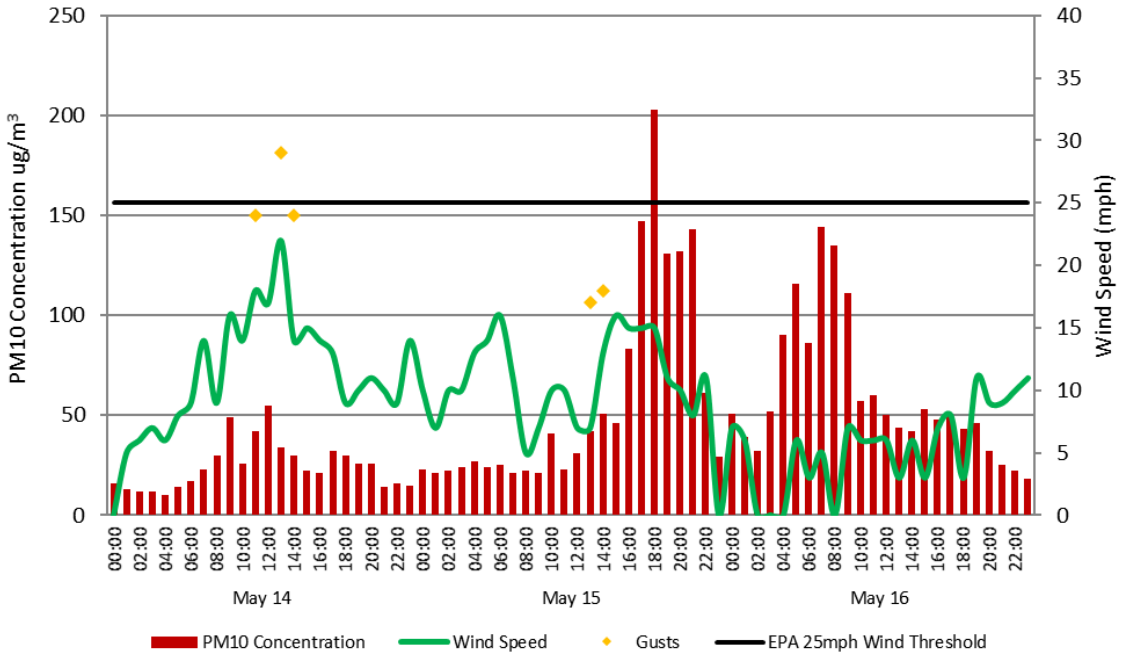


Fig. C-9: The Yuma, Arizona Supersite showed elevated concentrations toward the end of the day on May 15. Air quality data is from the EPA's AQS data bank. Wind data is from the NCEI's QCLCD system. Yuma shown in PST.